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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,408	06/05/2001	Minoru Yonezawa	P 281351 T4TY-01S0006-1	1821
909	7590	01/20/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			GOMA, TAWFIK A	
			ART UNIT	PAPER NUMBER
			2653	

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/873,408

Applicant(s)

YONEZAWA ET AL.

Examiner

Tawfik Goma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/29/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Detailed Action***

This action is in response to the amendment filed on 11/29/2005

***Claim Objections***

Claim 2 is objected to for the following reasons: The claim recites the limitation "the arithmetic operation" in line 4 of the claim. The claim does not define arithmetic operation previously in the claim to establish antecedent basis. The examiner will interpret "the arithmetic operation result" to mean the arithmetic operation from the tracking control means and that the tracking control signal is added to the focusing control signal and that the sum of the two signals is added to the focusing coil.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al (US Patent 6028826), herein Yamamoto.

Regarding claim 1, Yamamoto discloses an objective lens driving apparatus (fig. 1) comprising: an objective lens (105, fig. 1); an objective lens holder for holding the objective lens (110, 106, fig. 1), the objective lens holder being supported to be movable in an optical axis direction of a light beam made incident on the objective lens and a direction perpendicular to the optical axis direction (105, fig. 1 and col. 1 lines 39-47); a focusing coil (106, fig. 1) for driving the objective lens holder in the optical

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axis direction (col. 1 lines 40-43); a tracking coil (106, fig. 1) for driving the objective lens holder in the direction perpendicular to the optical axis direction (col. 1, lines 43-45); focus detection means for detecting a positioning error of the objective lens holder in the optical axis direction (114, fig. 1); tracking detection means for detecting a positioning error of the objective lens holder in the direction perpendicular to the optical axis direction (120, fig. 1); focus control means for receiving a detection signal from the focus detection means and outputting an arithmetic operation result of this detection signal to the focusing coil (150, 115, fig. 1); tracking control means for receiving a detection signal from the tracking detection means and outputting an arithmetic operation result of this detection signal to the tracking coil (150, 122, fig. 1); and compensation means for receiving at least one of output signals from the focus control means and the tracking control means (115, 122, 117, 124, fig. 1), and adding an arithmetic operation result of the received signal to an output signal from the tracking control means to the tracking coil or to an output signal from the focus control means to the focusing coil (115, 122, fig. 1) and determination means for temporarily restricting functions of the compensation means (col. 15 lines 44-47) when the determination means has determined that a disturbance component is mixed in (fig. 8a, 8b and col. 16 lines 57-61) the detection signal (131, fig. 1 and fig. 7a, 7b, 8a, 8b)), wherein the compensation means holds an additional value immediately before the restriction by the determination means to continuously add the additional value or the compensation means sets the additional value to zero while the functions of the compensation means are restricted by the determination means (fig. 9a, 9b, 9c). Figs.

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8a, and 8b show a vibration disturbance mixed into the tracking error signal while figs. 7a, 7b show a disc scratch disturbance resulting in a lack of signal mixed into the RF signal. Both the disc scratch and the vibration disturbances are mixed into the detection signals. Figs. 9a, 9b, and 9c show the output of the external disturbance applied to compensate the focusing and tracking signals when a disturbance is detected. The figs. 9a, and 9b clearly show that the compensation value (external disturbance value) is set to zero when an abnormality is detected in the signal, while fig. 9c shows that the output from the compensation value (external disturbance value) is held at a constant value and continuously added through the adders (115, 122, fig. 1).

Regarding claim 5, Yamamoto further discloses wherein the compensation means performs arithmetic operations to provide such frequency characteristics as to pass a frequency component near a control band determined by the tracking control means and the focus control means (112a, 112b, fig. 1 and col. 10 lines 58-67).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (US Patent 6028826) in view of Baba (US Patent 576227).

Regarding claim 2, Yamamoto discloses wherein the compensation means arithmetically processes a jitter error signal and adds the arithmetic operation result to the output signal from the focus control means (col. 17 lines 10-15). Yamamoto does not disclose using the output signal from the tracking control means and adding the arithmetic result of the tracking control signal to the output signal from the focus control means and to the focusing coil (see interpretation in claim objections above). In the same field of endeavor, Baba discloses adding the result of the tracking control signal to the focusing control signal and adding the sum to the focusing coil (42, 32, fig. 4). It would have been obvious to one of ordinary skill in the art to modify the compensation apparatus disclosed by Yamamoto by adding the tracking error signal to the focusing control signal as taught by Baba. The rationale is as follows: One of ordinary skill in the art would have been motivated to compensate the focusing error signal by using the tracking error signal in order to eliminate cross talk effects during reproduction (see Baba col. 6 lines 19-20).

### ***Response to Arguments***

Applicant's arguments filed 11/29/2005 have been fully considered but they are not persuasive. With regard to applicant's argument that Yamamoto (US Patent 6028226) does not disclose a disturbance signal mixed in with the detection signal, applicant's arguments are not persuasive for the following reasons: Yamamoto (figs. 8a, and 8b) show a vibration disturbance mixed into the tracking error signal while figs. 7a, 7b show a disc scratch disturbance resulting in a lack of signal mixed into the RF signal. Both the disc scratch and the vibration disturbances are mixed into the detection signals.

The vibration signal (figs. 8a, 8b) is clearly not a lack of signal as applicant has argued that a lack of signal is not a mixed in disturbance.

With regard to applicant's argument that Yamamoto does not show that the compensation signal is set to zero or held at a constant value when an external disturbance is detected, applicant's arguments are not persuasive for the following reasons: Yamamoto (figs. 9a, 9b, and 9c) shows the output of the external disturbance applied to compensate the focusing and tracking signals when a disturbance is detected. The figs. 9a, and 9b clearly show that the compensation value (external disturbance value) is set to zero when an abnormality is detected in the signal, while fig. 9c shows that the output from the compensation value (external disturbance value) is held at a constant value and continuously added through the adders (115, 122, fig. 1).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Pertinent Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ohta (US Patent 5909414) discloses an optical recoding and reproducing apparatus that prevents overwrite recording. Takamine (US Patent 6195321) discloses a disk rotation control apparatus with compensation means.



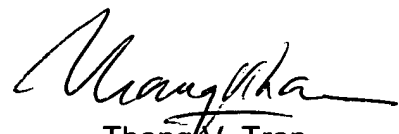
**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tawfik Goma  
1/10/2006

  
Thang V. Tran  
Primary Examiner  
1/10/2006